

probably her first ovum, laid 123 more, each loose by itself, in my box; and to von Siebold's observation on *L. scotica*, Don., I have now to add the fact, that its near ally *L. flaveola*, L., also drops her eggs, guided by the male, during flight, singly. each at a distance, loosely in the water, and not in bunches attached to any object. On the 3rd, and again on the 10th September, I re-witnessed the facts here detailed at the same pond, but without actually seeing an egg dropped. *En revanche*, having on the latter day induced a collector, whom I accidentally met, to catch a few of these dragon-flies, I saw a dying, pinned ♀ deposit her eggs in one bunch in his box. But, from the flaccid condition and great softness of these eggs, I conclude that they are not impregnated, and were only got rid of in the dying struggles of the insect. This incident, however, serves to show how careful we ought be to abstain from assuming that vital functions are performed in a similar way under natural and artificial conditions. "*Experientia docet*," that false and real data lie sometimes very close together, and that it will always be a great tax on the human mind to discern between the two. I have preserved in spirits both the unimpregnated egg-bunch and the mature loose eggs.

South Norwood, S.E., 11th September, 1871.

NOTES ON CARABIDÆ, AND DESCRIPTIONS OF NEW SPECIES (No. 9).

BY H. W. BATES, F. Z. S.

LOXANDRUS SUBCORDICOLLIS, n. sp.—*Elongato-oblongus, niger, politissimus, læte iridescens, antennis, labro, palpis pedibusque rufo-fulvis; thorace antice late rotundato, postice valde sinuato-angustato, angulis posticis prominulis, basi grosse pauciter punctato, fovea utrinque lata profunda; elytris profunde striatis; abdomine piceo-rufo.*

Long. $3\frac{1}{4}$ lin. ♂.

Distinguished from *L. xanthopus* chiefly by the thorax being dilated anteriorly and conspicuously narrowed behind; in front it is not much narrower than the base of the elytra.

St. Paulo, Upper Amazons.

LOXANDRUS CURTONOTUS, n. sp.—*Oblongus, piceo-niger, politus, iridescens; labro, antennis, palpis pedibusque rufo-fulvis; thorace brevi, transverso, antice rotundato, postice modice angustato, angulis posticis prominulis, supra toto basi punctato, fovea utrinque profunda, elytris punctato-striatis; subtus rufo-piceo, episternis impunctatis.*

Long. $3\frac{1}{2}$ lin. ♂ ♀.

Closely-allied to the preceding, but a distinctly broader and more robust insect, and distinguished by its punctured striæ.

Ega.

LOXANDRUS GRAVESCENS, n. sp.—*Robustior, oblongus, postice obtusus, piceo-niger, nitidus, leviter iridescens* (♀ *elytris sericeo-opacis*), *antennis, labro, palpis pedibusque rufis; thorace transverso, antice rotundato, postice prope basin sinuatim angustato, angulis posticis, rectis, suprà medio basi parce punctato, fovea lata utrinque profunda; elytris striatis, striis subtiliter punctatis; corpore subtus sericeo, impunctato.*

Long. $3\frac{1}{2}$ — $4\frac{1}{2}$ lin. ♂ ♀.

A species of somewhat heavier "build," especially in the larger individuals, than usual in this genus; with rather shorter and stronger legs and broadly rounded apex. The anterior angles of the thorax are also blunt and deflexed, giving a more obtuse appearance to that segment.

Banks of R. Tapajos.

LOXANDRUS SUBPARALLELUS, n. sp.—*Elongato-oblongus, niger, politus, leviter iridescens, antennis, palpis tarsisque fulvo-rufis, antennarum articulis 3—4 nigro-maculatis; thorace antice late dilatato-rotundato, postice angustato, angulis posticis rectis; toto basi sparsim grosse punctato; elytris striatis, striis subtiliter punctulatis; corpore subtus piceo-sericeo, impunctato.*

Long. 5 lin. ♂.

The thorax anteriorly is not much narrower than the elytra.

St. Paulo, Amazons.

LOXANDRUS RUBESCENS, n. sp.—*Oblongo-oratus, late iridescens, rufus, capite suprà et elytris (sutura marginibusque exceptis) piceo-nigris, antennis (basi flavo excepto) fuscis, palpis pedibusque flavis; thorace quadrato, postice paululum angustato, angulis posticis prominulis, suprà medio basi grosse pauciter punctato, fovea lata profunda; elytris profunde striatis, striarum fundis subtilissime punctulatis; metasterno grosse sparsim punctato.*

Long. $2\frac{1}{2}$ — $3\frac{1}{4}$ lin.

Upper Amazons.

LOXANDRUS PICTICAUDA, n. sp.—*Oblongo-oratus, leviter iridescens, piceus, antennarum basi, palpis pedibusque flavo-testaceis; elytris margine lato apicali maculaque parva suturali propinqua flavo-testaceis, interdum nigro-marginatis; thorace quadrato, interdum sanguineo, postice paululum sinuato-angustato, basi punctulato, fovea utrinque angusta profunda; elytris punctato-striatis; episternis impunctatis.*

Long. $2\frac{3}{4}$ lin. ♂ ♀.

R. Tapajos.

LOXANDRUS RUFOSTIGMA, n. sp.—*Oblongus, niger, leviter iridescens,*

antennis, palpis pedibusque rufo-testaceis, elytris margine apicali angusta indeterminata maculaque ovata suturali prope apicem rufo-testaceis; thorace quadrato, postice paululum angustato, angulis posticis rectis, basi utrinque punctato et fovea minus elongata, lata, profunda; elytris punctato-striatis; subtus, meso- et metasternis abdominisque basi punctatis.

Long. $3\frac{1}{2}$ —4 lin. ♂.

In colours of apex of the elytra this species resembles *L. picticauda*, but it is distinguished by its larger size, deeper black colour, the very much narrower pale apical border, and especially by the coarsely punctured episterna of its meso- and metathorax. It is evidently closely allied to *L. posticus*, Brullé; in which, however, the anterior femora are partly black.

Ega, Upper Amazons.

LOXANDRUS QUADRINOTATUS, n. sp.—*Oblongus, piceo-fuscus (elytris iridescentibus);* *antennis, palpis, capite antice, thorace pedibusque rufo-testaceis, elytris macula quadrata humerali, interstitia 5—8, alteraque minori prope apicem, interstitia 2—4 occupanti, flavo-testaceis; thorace quadrato, lateribus sub-regulariter rotundatis, angulis posticis sub-rectis, apice obtusis, suprâ basi sparsim punctato, utrinque fovea elongata sulciformi; elytris fortiter striatis; corpore subtus iridescenti, sternis (præcipue metasterno) punctatis.*

Long. $3\frac{1}{2}$ lin. ♂ ♀.

Obydos, Lower Amazons.

LOXANDRUS TETRASTIGMA, n. sp.—*Oblongo-ovatus, nigro-piceus, nitidissimus (elytris late iridescentibus);* *antennis, palpis, capite antice pedibusque flavo-testaceis, elytris macula rotundata humerali, interstitia 6—8, alteraque parva prope apicem interstitia 3—4 vel 3—5 occupanti, fulvo-testaceis; thorace quadrato, lateribus rotundatis, angulis posticis sub-rectis, suprâ basi parce punctatis, utrinque fovea ad fundum sulcata; elytris fortiter striatis, striarum fundis punctatis; corpore subtus iridescenti, sternis (præcipue metasterno) punctatis.*

Long. $2\frac{1}{3}$ —3 lin. ♂ ♀.

Closely allied to the preceding, differing only in the darker colour, smaller size of the elytral spots and distinctly punctulated striæ; besides being a smaller insect.

Ega, Upper Amazons.

LOXANDRUS VITTATUS, n. sp.—*Oblongus, fusco-piceus, iridescens, labro, palpis, antennarum basi pedibusque rufo-testaceis, elytris vitta, interstitium 6^{um} occupanti, postice abbreviata, maculisque binis posticis*

suturam versus flavo-testaceis, ornatis, marginibus lateralibus apiceque pallidulis; thorace quadrato, antice sat rotundato, postice angustato, angulis posticis prominulis, basi impunctato, fovea utrinque profunda; metasterno punctulato.

Long. 4 lin. ♀.

The pale vitta of the elytra commences at the base, spreading there to the 7th interstice, but through the rest of its course it is confined to the 6th, and terminates at two-thirds of the elytral length; it is succeeded, a little more inward, by an irregular pale spot on the 4th and 5th, and this again by a smaller spot on the 3rd and 2nd interstices. The elytra have impunctate, sharp striæ.

Rio Janeiro. Taken by the late Rev. Hamlet Clark.

LOXANDRUS VIRIDESCENS, n. sp.—*Minor, gracilior, piceo-niger, elytris sericeis, iridescentibus, leviter viridi-tinctis, antennis, palpis pedibusque testaceo-rufis; thorace valde transverso, elytris multo angustiori, antice leviter rotundato, postice paululum angustato, marginibus postice latius explanatis rufo-testaceis, angulis posticis prominulis, supra basi utrinque punctis majoribus perpauca foveaque breviori profunde impresso; elytris punctulato-striatis, sutura marginibusque plus minusve rufis; corpore subtus impunctato, sericeo-nitenti.*

Long. 3 lin. ♂ ♀.

Generally distributed throughout the Amazons region, under sediment, on the banks of the rivers.

LOXANDRUS OPACULUS, n. sp.—*Oblongus, sub-parallelus, infra ferrugineus, supra niger, elytris sericeo-opacis palpis antennarumque basi rufo-testaceis, pedibus rufo-piceis; thorace quadrato, elytris vix angustiori, antice vix rotundato, postice parum angustato, angulis posticis haud prominulis sed distinctis, marginibus rufo-piceis, medio basi punctis paucis magnis, fovea utrinque brevi fortiter impressa; elytris subtiliter punctato-striatis, sutura postice marginibusque rufo-piceis; corpore subtus impunctato.*

Long. 3 lin. ♂ ♀.

The whole under-surface of the body is of a clear ferruginous red hue in both my specimens: this character, together with the nearly square thorax and the very fine sharply impressed striæ, amply distinguish this species.

Banks of the Tapajos.

LOXANDRUS MACRODERUS, n. sp.—*Oblongus, piceo-niger, politus, late iridescens, labro, epistomate, palpis, antennarum basi (reliquis obscurioribus), pedibusque flavo-testaceis; thorace elongato, quadrato, postice haud angustato,*

angulis posticis rotundatis, margine laterali reflexo rufo-testaceo, suprè medio basi grosse punctato, fovea utrinque elongata profunda; spatio inter foveam et angulum fortiter convexo; elytris fortiter punctulato-striatis, sutura postica marginibusque rufescentibus, apice flavo-testaceo; corpore subtus levi, splendide iridescenti.

Long. $3\frac{1}{2}$ lin. ♀.

Resembles the *Platyderi* of Europe in the shape of the thorax.

St. Paulo, Amazons.

LOXANDRUS ATTENUATUS, n. sp.—*Elongatus, angustus, niger, nitidus, labro, palpis, antennarum articulo basali pedibusque flavo-testaceis, elytris macula parva suturali apicem versus rufo-testacea; thorace elongato, subcordato, antice rotundato, postice valde angustato, prope angulos posticos reflexo, medio basi grosse crebre punctato, fovea utrinque elongata sulcata, spatio inter foveam et angulum plano, lævissimo, reflexo, angulis obtusis; elytris fortiter punctato-striatis; corpore subtus piceo, lævi.*

Long. 3 lin. ♀.

Banks of Tapajos.

LOXANDRUS CELEBENSIS, n. sp.—*Elongato-oblongus, nigro-piceus, toto sericeo-iridescens, palpis antennarumque basi piceo-rufis, pedibus piceis; sulcis frontatibus latis, vix impressis; thorace quadrato, lateribus æqualiter rotundatis, anguste reflexo-marginatis, angulis posticis rotundatis, suprè lævissimo, fovea utrinque basali elongata, obliqua, ad fundum sulcata; elytris fortiter striatis, striarum fundis punctulatis; subtus, meso- et metathoracis episternis abdominisque basi punctato-rugosis, ♂ tarsorum anticorum articulis tribus valde obliquis, solis squamis pectinatis, elongatissimis, tarsi intermedii posticique multisulcati.*

Long. 4 lin. ♂.

Celebes. From Mr. Wallace's collection.

The following species differs so essentially from the *Loxandri*, and from the allied genera *Abacetus*, *Drimostoma*, *Trirammatu*s, &c., that a new genus must be formed for its reception.

Genus METONCIDUS.

Gen. char.

Mentum. Central tooth much smaller than side-lobes, broadly-rounded at the apex.

Palpi. Terminal joints cylindrical, truncate.

Antennæ. Moderately short, filiform.

Head. As in *Loxandrus*, frontal pits small, rounded.

Thorax. Basal fovea single on each side, broad and deep, without sulcus.

Elytra. Strongly convex posteriorly; without abbreviated scutellar stria, and with a series of large punctures posteriorly on alternate interstices.

Metathoracic episterna elongated, narrow, inner margin sulcated.

Anterior tarsi ♂ with three dilated, short, cordiform joints, not oblique, and furnished beneath with close-fitting squamæ, in two rows.

METONCIDUS TENEBRIONIDES, n. sp.—*Oblongus, postice valde convexus, niger, nitidus, palpis, antennis pedibusque piceo-rufis, tarsis pallidioribus; thorace transversim quadrato, antice parum rotundato, postice leviter angustato, marginibus angustis, angulis posticis sub-rectis, suprâ impunctato, fovea utrinque basali oblonga, profunda, fundo obtuso, levi; clytris pone medium angustatis, postice iterum paulo dilatatis, suprâ punctulato-striatis, interstitiis 1, 3, 5, postice punctis majoribus seriatim impressis; corpore subtus lævissimo.* Long. 5 lin. ♂.

Ega, Upper Amazons.

Kentish Town: October, 1871.

DESCRIPTION OF A NEW SPECIES OF *PHOXOPTERYX*, FROM GREAT BRITAIN.

BY C. G. BARRETT.

When collecting in the Norfolk fens this summer, I several times met with a very pretty *Tortrix* of the genus *Phoxopteryx* of Guenée, which appears to be undescribed, and which I accordingly characterize as follows:—

PHOXOPTERYX PALUDANA, n. sp.

Antennæ brown. Head and thorax whitish. Fore-wings silvery-white, clouded with very pale chocolate towards the hind margin. On the inner margin, from the base to the middle, is a chocolate-brown blotch, reaching more than half across the wing, and very obtusely angulated towards the costa. Opposite to this angle, a bright chocolate fascia, exteriorly edged with white, rises on the costa, proceeding half-way to the anal angle, when its exterior margin forms a very acute angle towards the apex of the wing, and touches a cloud of the same colour which occupies the tip. On the costa, towards the apex, the usual short streaks are faintly visible. Hind-wings pale grey in the male; dark grey in the female.

Allied to *Lundana*, but with longer, narrower wings, the dorsal blotch much flatter and more angulated, the fascia distinct and much more acutely angulated, and the space beyond it pale.

Found flying, just before dusk, among the shortest of the rank herbage at Ranworth fen, in June, and again in August.

Mr. Bond has also shown me specimens from the Cambridgeshire fens.

Norwich: 28th September, 1871.